

## **IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

### **Listing of the Claims:**

1. (Previously presented) An image processing system including a plurality of linear arrays of detectors imaged onto a scene of interest and an image store for receiving signals from the linear array when a detected object passes through the scene;

wherein the plurality of linear arrays of detectors are spaced substantially parallel to one another to image a plurality of areas of interest in a scene; and

the system further comprises a signal processor for detecting images received by the plurality of arrays and determining direction and speed of movement detected.

2. (Previously presented) The system of claim 1 wherein the detectors are infra red detectors.

3. (Previously presented) The system of claim 1 wherein the detectors are visible light sensitive detectors.

4. (Previously presented) The system of claim 1 wherein the detectors are mm wave sensitive detectors.

5. (Previously presented) The system of claim 1 wherein each detector element in each linear array has associated therewith an independent noise limiting means.

6. (Previously presented) The system of claim 5 wherein the noise limiting means at each detector element comprises an independent amplifier and filter.

7. (Previously presented) The system of claim 1 wherein each detector array has its output read out sequentially from each detector element.

8. (Previously presented) The system of claim 1 wherein the processor is arranged to determine at least one of detected object range, direction of movement, speed, true direction of travel, object type.

9. (Previously presented) The system of claim 1 including an additional two-dimensional detector array system which may be switched on when an object is detected.

10. (Previously presented) The system of claim 1 wherein several systems are combined into a single unit arranged to give about 360° of azimuthal coverage.

11. (Previously presented) The system of claim 1 wherein outputs from the signal processor are communicated to remote monitoring stations.

12. (Cancelled)

13. (Currently amended) The system of claim 1, wherein the linear arrays of detectors are arranged to sequentially image the detected object ~~sequentially~~ in said plurality of areas of interest as said detected object passes through the scene.

14. (Previously presented) The system of claim 1, wherein the linear arrays are disposed such that as the detected object passes through the scene a component of movement thereof is substantially orthogonal to an alignment direction of said arrays.

15. (New) The system of claim 1, wherein the detected object is imaged consecutively by each of the plurality of linear arrays of detectors as said detected object passes through the scene.

16. (New) An image processing system including a plurality of linear arrays of detectors imaged onto a scene of interest and an image store for receiving signals from the linear array when a detected object passes through the scene;

wherein the plurality of linear arrays of detectors are spaced substantially parallel to one another to image a plurality of areas of interest in a scene; and

the system further comprises a signal processor for detecting images received by the plurality of arrays and determining direction and speed of movement detected wherein the linear array of detectors are not one or more video cameras.

17. (New) An image processing system including a plurality of linear arrays of detectors imaged onto a scene of interest and an image store for receiving signals from the linear array when a detected object passes through the scene;

wherein the plurality of linear arrays of detectors are spaced substantially parallel to one another to image a plurality of areas of interest in a scene;

the system further comprises a signal processor for detecting images received by the plurality of arrays and determining direction and speed of movement detected; and

wherein the linear arrays of detectors are arranged so that the detected object is not imaged simultaneously by each of the plurality of linear arrays of detectors as said detected object passes through the scene.